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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/019,719

04/29/2002

Joachim Hohne

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7590

06/05/2006

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EXAMINER

KANG, INSUN

ART UNIT

PAPER NUMBER

2193

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/019,719	HOHNE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Insun Kang	2193	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/11/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This action is in response to the RCE amendments filed 3/14/2006.
2. As per applicant's request, claims 8-10 have been added and claims 1, 3, 5-7 have been amended. Claims 1 and 3-10 are pending in the application.

### ***Drawings***

3. The drawing filed 8/11/2005 is objected to under 37 CFR 1.83(a). As addressed previously, the drawing must show every feature of the invention specified in the claims. Therefore, transmitting the mobile program code, generating further mobile program code etc must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Further, the applicant stated that the figure 1 is an "exemplary embodiment of a typical industrial automation system (page 6)" with the arrow 50 indicating the transmission of code from a remote location to the central computer of the automation system. Therefore, figure 1 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 2193

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soergel et al. (US Patent 6,529,780) hereafter Soergel in view of Lange et al. ("programming and deploying Java Mobile Agents with Aglets," 8/1998) hereafter Lange.

Per claim 1:

Soergel discloses:

Art Unit: 2193

-an industrial automation system (i.e. "an automation system for the erection and operation of industrial plants," abstract). Soergel discloses transmitting data from a remote location to the central computer of the industrial automation system (i.e. col. 2 lines 13-23). Soergel does not explicitly teach transmitting a mobile program code. However, Lange teaches such using mobile code was known in the pertinent art, at the time applicant's invention was made, to support the "concepts of autonomous execution and dynamic routing on its itinerary" (i.e. "The aglet is a mobile Java agent that supports the concepts of autonomous execution and dynamic routing on its itinerary," page xxii, third paragraph). It would have been obvious for one having ordinary skill in the art to modify Soergel's disclosed system to use the Aglet technology disclosed in Lange. The modification would be obvious because one having ordinary skill in the art would be motivated to achieve the autonomy and the optimal configuration maintained by using an aglet that has the unique ability to distribute themselves among the hosts in the network" and "create a cascade of clones in the network...to administer parallel processing tasks (page 9 paragraph 4)" for the operation of industrial plants in Soergel.

Soergel in view of Lange further discloses: installing and commissioning the code independently on the industrial automation system (i.e. col. 3 lines 40-47) generating by means of the mobile program code further mobile program codes having a defined task, and transmitting the further mobile program codes at least to said actors and sensors within the industrial automation system (i.e. col. 3 lines 40-47).

Per claim 3:

The rejection of claim 1 is incorporated, and further, Sorgel teaches:

Art Unit: 2193

-a mobile program codes is transmitted between the remote location and the industrial automation system via ISDN, satellite, or Internet (i.e. ISDN, modem...Internet," col. 5 lines 55-67)

Per claim 4:

The rejection of claim 1 is incorporated, and further, Lange teaches:

-the mobile program code is JAVA program code (i.e. "Java-based mobile agent systems: Aglets, Odyssey, Concordia, and Voyager," page 11 paragraph 4).

Per claim 5:

The rejection of claim 4 is incorporated, and further, Sorgel teaches:

-running the mobile program code on hardware provided for an open-loop or closed-loop control of the industrial automation system (i.e. col. 5 lines 1-20).

Per claims 6:

The rejection of claim 1 is incorporated, and further, Lange teaches:

-the installed mobile program code is designed to monitor the industrial automation system ("An agent can monitor a given information source without being dependent on the location from which it originates," page 9).

Per claim 7:

The rejection of claim 6 is incorporated, and further, Lange teaches:

-independently monitoring the industrial automation system by means of the mobile program code for faults or special events, in the event of which information needed to

Art Unit: 2193

evaluate the fault or the special event is transmitted to the remote location by means of the mobile program code, or a further mobile program code (i.e. "Monitoring and notification....An agent can monitor a given information source without being dependent on the location from which it originates. Agents can be dispatched to wait for certain kinds of information to become available. It is often important that the life spans of monitoring agents exceed or are independent of the computing processes that create them," page 9 second paragraph).

Per claim 8:

The rejection of claim 1 is incorporated, and further, Sorgel teaches: automation devices located between said central computer and said actors and sensors (i.e. col. 5 lines 1-20).

Per claim 9:

The rejection of claim 1 is incorporated, and further, Sorgel teaches: an industrial Ethernet bus for coupling said automation devices and said central computer (i.e. col. 5 lines 1-20).

Per claim 10:

The rejection of claim 1 is incorporated, and further, Sorgel teaches: a Profibus for coupling said automation devices and said actors and sensors (i.e. col. 5 lines 1-20).

6. Claims 1 and 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh et al. (US Patent 6,038,486) hereafter Saitoh in view of Lange et al.

Art Unit: 2193

("programming and deploying Java Mobile Agents with Aglets," 8/1998) hereafter Lange.

Per claim 1:

Saitoh discloses:

-an industrial automation system (i.e. "a factory automation system," col. 1 lines 25-28).

Soergel discloses transmitting data from a remote location to the central computer of the industrial automation system (i.e. col. 1 lines 29-44). Soergel does not explicitly teach transmitting a mobile program code. However, Lange teaches such using mobile code was known in the pertinent art, at the time applicant's invention was made, to support the "concepts of autonomous execution and dynamic routing on its itinerary" (i.e. "The aglet is a mobile Java agent that supports the concepts of autonomous execution and dynamic routing on its itinerary," page xxii, third paragraph). It would have been obvious for one having ordinary skill in the art to modify Saitoh's disclosed system to use the Aglet technology disclosed in Lange. The modification would be obvious because one having ordinary skill in the art would be motivated to achieve the autonomy and the optimal configuration maintained by using an aglet that has the unique ability to distribute themselves among the hosts in the network" and "create a cascade of clones in the network...to administer parallel processing tasks (page 9 paragraph 4)" for the operation of industrial plants in Soergel.

Saitoh in view of Lange further discloses: installing and commissioning the code independently on the industrial automation system (i.e. col. 1 lines 29-44) generating by

Art Unit: 2193

means of the mobile program code further mobile program codes having a defined task, and transmitting the further mobile program codes at least to said actors and sensors within the industrial automation system (i.e. col. 1 lines 29-44).

Per claim 3:

The rejection of claim 1 is incorporated, and further, Saitoh teaches:

-a mobile program codes is transmitted between the remote location and the industrial automation system via ISDN, satellite, or Internet (i.e. col. 1 lines 29-44)

Per claim 4:

The rejection of claim 1 is incorporated, and further, Lange teaches:

-the mobile program code is JAVA program code (i.e. "Java-based mobile agent systems: Aglets, Odyssey, Concordia, and Voyager," page 11 paragraph 4).

Per claim 5:

The rejection of claim 4 is incorporated, and further, Saitoh teaches:

-running the mobile program code on hardware provided for an open-loop or closed-loop control of the industrial automation system (i.e. col. 1 lines 29-44).

Per claims 6:

The rejection of claim 1 is incorporated, and further, Lange teaches:

-the installed mobile program code is designed to monitor the industrial automation system ("An agent can monitor a given information source without being dependent on the location from which it originates," page 9).

Art Unit: 2193

Per claim 7:

The rejection of claim 6 is incorporated, and further, Lange teaches:

-independently monitoring the industrial automation system by means of the mobile program code for faults or special events, in the event of which information needed to evaluate the fault or the special event is transmitted to the remote location by means of the mobile program code, or a further mobile program code (i.e. "Monitoring and notification...An agent can monitor a given information source without being dependent on the location from which it originates. Agents can be dispatched to wait for certain kinds of information to become available. It is often important that the life spans of monitoring agents exceed or are independent of the computing processes that create them," page 9 second paragraph).

Per claim 8:

The rejection of claim 1 is incorporated, and further, Saitoh teaches: automation devices located between said central computer and said actors and sensors (i.e. col. 1 lines 29-44).

Per claim 9:

The rejection of claim 1 is incorporated, and further, Saitoh teaches: an industrial Ethernet bus for coupling said automation devices and said central computer (i.e. col. 1 lines 29-44).

Per claim 10:

The rejection of claim 1 is incorporated, and further, Saitoh teaches: a Profibus for coupling said automation devices and said actors and sensors (i.e. col. 1 lines 29-44).

***Response to Amendment***

7. The amendments to the claims filed on 8/11/2005 do not comply with the requirements of 37 CFR 1.121(c) because: per claims 4-6, these claims have been previously amended, therefore, the identifier "previously presented" should be used. To expedite the prosecution, the examiner interpreted that the identifier, "original," used for claims 4-6 was meant to be "previously presented." However, clarification is requested.

The amendments to the claims filed on 1/13/2006 do not comply with the requirements of 37 CFR 1.121(c) because: The abstract has substantially rewritten, therefore, a new abstract in clean text without markings accompanied by an instruction for the cancellation of the previous abstract needs to be submitted. \*Note: any new or replacement abstract must be submitted on a separate sheet (37 CFR 1.72).

***Response to Arguments***

8. Applicant's arguments with respect to claims 1 and 3-10 have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-R: 7:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for

Art Unit: 2193

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

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